

WELLCOME INSTITUTE FOR THE HISTORY OF MEDICINE

MORBID CRAVINGS

THE EMERGENCE
OF ADDICTION



CATALOGUE



An exhibition held in conjunction with
the Centenary Meeting of
the Society for the Study of Addiction

22 October 1984 to 25 January 1985

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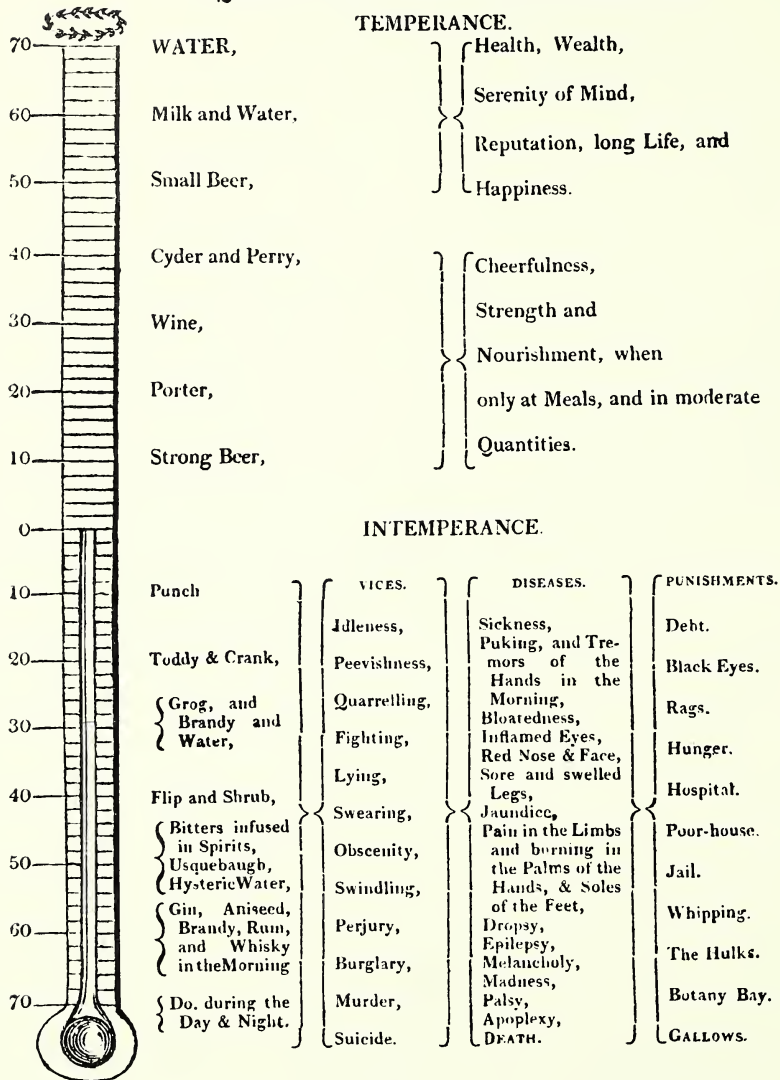


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MORBID CRAVINGS

THE EMERGENCE
OF ADDICTION

LIQUORS, with their EFFECTS, in their usual Order.



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The Moral and Physical Thermometer of John Coakley LETTSOM [1744-1815], first published in 1789.

Wellcome Institute for the History of Medicine

183 Euston Road London NW1

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for the History
and Understanding
of Medicine

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the emergence of addiction

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22 October 1984 to 25 January 1984

Monday to Friday - 0945-1715 hrs

**WELLCOME
COLLECTION**

/ (44)

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MORBID CRAVINGS: the emergence of addiction

Introduction

Man has for millenia induced ceremonial and curative intoxication through the use of psychotropic (psychoactive, mind-changing) drugs. The mescal bean - exceedingly hazardous - was so used by the Amerindians for at least ten thousand years. Alcohol, the product of natural fermentation, has been known for some eight thousand years. The identity of 'Soma' is lost in the legends of the Aryan invaders of India during the 2nd century B.C.; and opium was known to the ancient Greeks. Intoxicants have been used in most cultures for similar religious, ritual and divinatory purposes, and only far more recently have they become used more casually for social relaxation and personal enjoyment.

Socially approved intoxication is therefore by no means abnormal. It is the dark passage from accepted and social intoxication to habituation, addiction, dependence and abuse that during the last two hundred years has become increasingly a matter for concern. The gradual recognition of the condition and the accompanying development of informed concern is the focus of the present exhibition. Addiction as a product of regular intoxication was not considered an important matter until the second half of the 18th century. In Hogarth's engraving (Case 4) of 1751, the people consume the gin and the gin consumes the people, but the relation between the two is left vague. Much in fact hangs on both: availability and price were the means assayed at that time to control abuse on a massive scale. They are still the means in use, perhaps particularly in Europe and North America, to promote control of the socially favoured drugs of abuse, alcohol and tobacco. Over the last two hundred years emphasis has shifted from moral and emotional concern (Temperance, Abstinence, Teetotalism, Prohibition) to medical concern for addiction and for its victims. Addiction, a word not generally in use for this purpose until just before World War I, has become perceived both as a concept and as a medical problem.

In this shift, individual medical experience and observation, and general opinion in the late 18th century and early 19th century, followed much later in Britain by the informed and coordinated approach of the Society for the Study of Addiction, have played their part. Alcohol, as the most conspicuous substance used and abused in society, was the prime target both of the late 18th century temperance reformers and of the 19th century teetotal movement. As a result certain professional, political, and reforming bodies in the late 19th century attempted to understand, curb or cure the abuse of intoxicants. The medical profession, increasing in size, scientific knowledge, and social and political influence, expressed its specialized interest in research and education by forming in 1884 the Society for the Study and cure of Inebriety; which therefore as the re-named Society for the Study of Addiction (to Alcohol and other Drugs) now celebrates its centenary.

The Society had its origins in the earlier Society for Promoting Legislation for the Control and Cure of Habitual Drunkards, formed in 1876, which had lobbied for the passing of the Habitual Drunkards Act of 1878. The Society's published Proceedings, re-named the British Journal of Inebriety in 1903 and the British Journal of Addiction in 1946, were from the start a

major part of its activities. The Society's initial focus on what was then known as 'inebriety' - or a craving for drink - was a medical one, and full membership of the Society was originally limited to those with a medical qualification. For many of these members, a medical interest in the subject was entwined with a moral one; members of the Society such as Dr. Norman Kerr (Case 1), the first President, were active in the temperance movement. The Society also attracted leading moral reformers among its lay associates; Lord Shaftesbury and Canon Ellison attended its inaugural meeting. The Society's initial optimism about the nature of the problem with which it had to deal appears to have been shortlived. Originally the Society for the Study and Cure of Inebriety, the 'Cure' had been dropped from the title as early as 1887.

The Society was from its inception concerned with 'inebriety' in relation to drugs other than alcohol, although the issue of alcohol was always paramount in the first decades. Other drugs, opium and morphine in particular, were considered in England, and by the Society in particular, within the model originally applied to drink. There is a chapter on 'opium inebriety', for instance in Norman Kerr's classic work on Inebriety (1888) (Case 5). Many of the early members combined their medical and temperance interests with involvement in the anti-opium movement, working to end Britain's involvement in the Indo-Chinese opium trade. They combined with the Society for the Suppression of the Opium Trade in 1882 to organise a conference on the medical aspects of the opium question. The early continental texts on addiction took a somewhat different approach. Edward Levinstein's Morbid Craving for Morphia (1878), from which the present exhibition takes its title, had little or no mention of drink, and dealt with morphine addiction within a model closely related to insanity; morphinomania was a term commonly in use for the more extreme manifestations of the condition and the tradition survives in the modern French and Italian words for addiction (toxicomanie, tossicomania). Despite the Society's early concern with drugs, however, and the passing of the first Dangerous Drugs Act in 1920, it was not until 1946 that the Society changed its name to the Society for the Study of Addiction (to Alcohol and other Drugs), the official title today.

A wide range of drugs can be regarded as drugs of dependence of which only a quite limited number can be represented in this exhibition. Definitions of dependence, addiction and abuse are still in a state of flux, and those in turn affect the types of substance classified as addictive.

The term 'addiction', still in popular use in Britain and used in the subtitle of this exhibition, has to a degree been replaced by that of 'dependence', or by formulations such as 'problem drinker'. A new definition of the condition was adopted by the World Health Organisation in 1964 and thereafter the term 'dependence' was favoured in official circles. But the definition adopted left almost as many loose ends as it tied, and there is still no generally accepted definition of addiction or dependence. How to distinguish between use, abuse and dependence is still debated. In some areas the newer, less obviously medical definitions, have been welcomed as indicative of a broader social as well as medical approach. Other commentators have seen the concepts as catch-all terms designed to medicalise wider areas of drug use, and to incorporate in a disease model for example, drugs such as cocaine which engender no physiological

dependence. The concept of 'problem drinking' has also been criticised as simply a re-formulation of the medical approach, whose ancestry derives from the temperance concerns of the 19th century. The major problems are however seen to be alcohol and the opioids (opium, morphia, morphine, heroin, etc.) together with cocaine, the amphetamines, the barbiturates and the sedative/hypnotics, and a host of drugs more properly called psychotropic such as cannabis, LSD and other peyote-related substances whose addictive status is as yet undetermined. Tobacco is a special problem since it combines a propensity to addiction with a yet greater risk of disastrous physical damage. If strict criteria are applied, the near-universal coffee and tea also fall within the scope of addictive substances, though as addictions have been isolated within the broader field of indulgences, these have been left conveniently undefined.

The concept of addiction remains complex. Boundaries shift, but problems remain. We may well ask: what is new today? Over-the-counter sales of glue have replaced the opium available in the 19th century grocers' shops. In the 1830s factory workers took laudanum as an everyday medicine and as a pick-me-up for the strains of early industrial and urban life. In the 1980s working class adolescents take heroin because of the hopelessness of unemployment. Cocaine addiction, now with us for some ninety years, is on the increase. Alcohol abuse too, after low levels for much of the 20th century, is rising rapidly to 19th century levels.

Today the type of medical impetus which led to the formation of the Society for the Study of Addiction finds its expression in the expansion of medical technology in the area of drug/brain interaction, in research into the formation of natural opioids in the brain, in areas of experiment and scientific research. Social and policy research meanwhile concentrate on the influence of culture, on the setting in which drug and alcohol use takes place, the economics of use and abuse, and on the possibility that addiction - to drugs in particular - may be a temporary phase rather than a permanent state for many individuals.

A number of fundamental questions remain to be asked. How far, for example, is legitimisation itself a product of our social assumptions? Do our assumptions need to be altered? If so, how? Is the craving that becomes 'morbid' in part a product of the restrictions of our internalised culture? Is it a human necessity to seek to escape from the immediate world of materiality, or is this attempt at escape yet another illusion? Is it legitimate in any circumstance to seek a psychic gratification by chemical means? If so, what constitutes the boundary between mildly pleasurable and permissible intoxication and morbid habituation? Finally, how far dare any society tolerate a drug whose use is not already legitimised and patterned within it?

This exhibition attempts to ask some of these questions through a review of the immediate past. No readymade answers will result. But by indicating some patterns of use and abuse, by outlining some antecedents, and by concentrating on the experience surrounding the foundation of the Society, it is hoped that present concepts of addiction, dependence and abuse will be clarified and enlarged.

CATALOGUE

Texts and illustrations on screens.

CENTRE: THE MORAL AND PHYSICAL THERMOMETER of Benjamin RUSH [1745-1813] (above) was published in Philadelphia in 1784. It was closely followed (below) by his correspondent in London, John Coakley LETTSOM [1744-1815], Quaker physician and philanthropist, five years later. Rush's version is reproduced from Y. Henderson, A new deal for liquor, Garden City: Doubleday, 1934, p.43, and Lettsom's (which appears as the frontispiece to this catalogue) from J.J. Abraham, Lettsom, London: Heinemann, 1933, p.484.

LEFT:

1. Miriam Rothschild and Theresa Clay, Fleas, flukes and cuckoos. A study of bird parasites, London: Collins, 1953, p.51:

'The symphile rove beetles are housed, fed and even reared by the ants and, in return for their hospitality and solicitude, eat their eggs and young. To encourage their ministrations the beetles exude a glandular liquid which the ants find madly attractive and lick up with intense eagerness. It is not known if the liquid exuded by the beetles confers any benefit on the ants. It appears more probable that they are merely sacrificing their brood in order to indulge an irresistible craving for the exudation - a situation which the beetles have learned to exploit. Such curious behaviour is also found in human communities where men will sacrifice their own health and the welfare of their families in order to indulge in drugs and drink.'

2. Old Chinese proverb:

chiu	chiu	ren	酒	酒	人
jin	jin	her	浸	浸	喝
ren	chiu	chiu	人	酒	酒

[First the man takes a drink. Then the drink takes a drink. Then the drink takes the man.]

3. William Langland, Will's visions of Piers Plowman, A-text, passus I, lines 32-35:

'Dred delitable drynk & thou shalt do the betere.
Mesure is medicine theyi thou muche yerne.
Al is not good to the gost that the gut [ask]ith,
Ne liflode to the lycam that lef is to the soule.'

[Dread delightful drink and thou shalt do the better. Measure is medicine, though thou much yearn. All is not good for the ghost (spirit) that the gut asketh, nor is livelihood to the body what is lief to the soul.]

4. King James I, A counterblaste to tobacco, London: R.B., 1604, fol. C3^v:

'And from this weakenesse it proceeds, that many in this kingdome haue had such a continuall vse of taking this vnsauorie smoke, as now they are not able to forbear the same, no more then an olde drunkard can abide to be long sober, without falling into an vncurable weakenesse and euill constitution: for their continuall custome hath made to them, habitum, alteram naturam [a habit as second nature]: so to those that from their birth haue bene continually nourished upon poison and things venemous, wholesome meates are onely poisonable.'

5. Samuel Auguste Tissot De la santé des gens de lettres, Lausanne: F. Grasset, 1768, p. 202:

'Le lait diminue un peu l'irritation que le café occasionne, mais n'en détruit point tous les mauvais effets, ce mélange en a même qui lui sont particuliers, & les Gens de Lettres sages devroient en général réserver le café pour leur remede favori, mais ne jamais en faire leur boisson quotidienne; cette habitude est d'autant plus dangereuse, qu'elle dégénere bientôt en besoin auquel peu de personnes ont la force de se soustraire. On sait qu'on s'empoisonne, mais le poison est doux & on l'avale.'

6. Samuel Auguste Tissot, De la santé des gens de lettres, Lausanne: F. Grasset, 1768, p. 211:

'Les fumeurs n'entendront pas plus cela que les ivrognes un discours sur les dangers du vin; mais je serai content si je puis empêcher les jeunes gens, qui ne s'en sont pas encore rendus les esclaves, de contracter cette habitude, et ouvrir les yeux de ceux qui veillent à l'éducation sur cet objet, qui, en l'examinant, leur paroîtra peut-être plus digne de leur attention, qu'ils ne l'ont pensé jusques à présent.'

7. Petrus Bergius, Dissertatio diaetetica in qua spiritus frumenti proponitur, thesis, Upsala, 1764, p.17, translated:

'What could be more wretched than a man who indulges in whisky every day? In the morning he is so completely lacking in strength that for hours he hardly seems to be alive. His hands shake, his speech is slow, he has no appetite, his face is pale, pain oppresses his chest like a worm gnawing and tearing him apart. He is clumsy and incapable, and until he has swallowed down his nectar he is like an unwound-up clock. It is not he who lives his life but the whisky.'

RIGHT:

Current posters on the dangers of tobacco and alcohol

Campaigns emphasize death as the ultimate penalty. In theory such dramatic appeals to fear should produce a change of attitude. Historically, this is not so. 'Morbid cravings' may be reduced; but they are likely to persist.

Case 1

The Society for the Study of Addiction and its Journal

The Society for the Study of Addiction to Alcohol and Other Drugs was founded in 1884 as the Society for the Study and Cure of Inebriety. Its purpose was to investigate the causes of inebriety and to educate the medical profession and the public to a 'recognition of the physical aspects of habitual intemperance'. It gradually widened its interest to include such diverse substances liable to abuse as the opioids, ether, and paraldehyde. The British Journal of Inebriety (1903) thus in 1946 became the British Journal of Addiction.

Proceedings of the Society for the Study and Cure of Inebriety, 1884, (1),1.

On Feb. 25th, 1884 at 1 Adam Street, Adelphi, London, the Society for the Study and Cure of Inebriety was formed under the presidency of Dr. Norman KEFR, F.L.S.

Proceedings of the Society for the Study and Cure of Inebriety, 1884, (1),16.

The purposes of the Society were expounded in the President's Inaugural Address.

Proceedings of the Society for the Study and Cure of Inebriety, 1884, (1),44-45.

The Society admitted medical practitioners as full Members. Medical students and medical laymen were admitted as Associates. Members subscribed from all areas of the U.K. and represented a wide cross-section of the medical profession. Associates included Bishops, other senior clergy, and Peers.

Proceedings of the Society for the Study and Cure of Inebriety, 1887, (13), 1.

Meetings were held quarterly and the first international meeting was convened in 1887.

Proceedings of the Society for the Study and Cure of Inebriety, 1890, (26), 1-3; ibid, 1891, (27), 16.

An early success was the scheduling of ether as a poison following the Society's representations to the Government.

Proceedings of the Society for the Study and Cure of Inebriety, 1892, (33), 1.

The Society widened its interest to include 'the morphine disease' in 1892.

British Journal of Inebriety, 1934, 31 (3).

The Society's 50th anniversary in 1933-34, saw a continued interest in alcohol, but other drugs were also studied. The President was Sir Humphrey ROLLESTON [1862-1944], President successively [1918-27] of the Royal Society of Medicine, the Royal College of Physicians, and the Medical Society of London.

British Journal of Inebriety, 1905, 2 (3).

The Journal was founded as the Proceedings of the Society in 1884 and was published by H.K. Lewis of 136 Gower Street, London, for sixpence. Dr. T.N. Kelynack was Editor for the first 40 years of this century. Other long-serving editors were Dr. Yerbury Dent [1941-1962] and Dr. Max Glatt (1962-1978).

British Journal of Addiction, 1984, 79 (1).

The centenary edition includes articles of historical interest.

Case 2

The Society for Study of Addiction and its Library

A notice calling for donations of books for the Society's library appeared in the first issue of the Proceedings in 1884. Though the library remains small it reflects graphically the changing medical and social attitudes to addiction during the Society's life. The many Temperance, Teetotal, and related texts provide a flavour of the early crusading years of the Society.

The library is now in the care of the Wellcome Institute.

W.G. STIRLING. 'Opium smoking among the Chinese.' Times of Malaya Press, 1913,

presents an unemotional account of the practice and effects of opium smoking with many photographs and drawings. Addiction - though not so called - is recognised.

M. NYSWANDER. 'The drug addict as a patient'. New York & London, 1956.

Marie Nyswander's book was influential in the U.S.A. in altering medical attitudes to the drug addict.

Case 3

Alcohol - early reports of addiction

Most human cultures licence some form of intoxication. Some intoxicants are favoured; others are rigorously repressed. Thus the Aztecs encouraged peyote intoxication (i.e. by eating the Lophophora williamsii cactus) in a religious context, and subjected those drunk on pulque (the fermented sap of the Agave americana) to a prompt and violent death.

Intoxicants favoured by society are subject to social restraints and are less likely to be abused than those for which no social patterning exists. Severe intoxication and addiction tend to arise when a new or more powerful intoxicant is introduced; for example, alcoholic spirits ('Gin Lane' in Case 4), morphine, cocaine, heroin, marijuana to western cultures; alcohol to Amerindians; opium to the Chinese.

The liquor trade, particularly encouraged in America by its part in the slave trade with Africa, by its portability, profitability, and its use as a bartering medium with Amerindians, brought the problems of addiction - among whites, Indians, and slaves alike - to the early notice of American medical men. Rum and whisky, thus encouraged, constituted a particular problem for the nascent United States. In the Mid-West in particular, the proceeds (or barter) from whisky were profitable. Its grain origin, through problems of bulk transport, was not.

[S. HALES]. 'Distilled spirituous liquor the bane of the nation.' London, 1736.

While drunkenness has long been the target of the moral reformer, recognition of the 'pernicious' nature of alcohol (the word 'addiction' in this sense is not current until c.1909), was made by the Revd. Stephen Hales [1677-1761], the noted physiologist, in this anonymous pamphlet. Influenced by the rapid growth of highly profitable distilleries and gin shops throughout London and the deleterious effects of ardent spirits on the populace, he regards alcohol as poisonous, pernicious, and inclining to depravity. His activities and contemporary distaste for public scenes of drunkenness resulted in a duty on 'spirituous liquors' and a punitive annual retail licence fee. Neither lasted, but this was the first of the classic attacks on alcoholism by reduction in availability and increase in price.

A. BENEZET. 'The mighty destroyer displayed.' Philadelphia, 1774,
advocates the substitution of water for spirits, and approaches the problem in a matter-of-fact manner.

G. CHEYNE. 'An essay of health and long life.' London, 1724; and W. BUCHAN 'Domestic medicine.' Edinburgh, 1769,
take their characteristically commonsense view of 'intemperance'.

B. RUSH. 'An inquiry into the effects of spirituous liquors upon the human body, and their influence upon the happiness of Society' in 'Medical inquiries and observations.' Philadelphia, 1797, vol.2, pp.[57]-82.

Benjamin Rush [1745-1813], maintaining that 'a people corrupted by strong drink cannot long be a free people', advises the drastic withdrawal of alcohol from the addicted. 'Spirituous liquors destroy more lives than the sword. War has its intervals of destruction - but spirits operate at all times and seasons upon human life'. Rush was probably the first to advocate (1810) an Asylum for Drunkards, 'for persons addicted to the excessive use or ardent and fermented liquors', to be called 'the Sober House'.

J.C. LETTSOM. 'Some remarks on the effects of Lignum Quassiae Amarae', London, 1792.

John Coakley Lettson [1744-1815], himself temperate rather than abstemious, notes in his paper published in the Memoirs of the Medical Society of London., 1792, 1, 128-65, the deleterious and insidious effects of habituation to alcohol. He observes the place of 'compulsion' and 'attachment' as factors determining alcohol intake; and he advocates, unlike the sterner Benjamin Rush, gradual rather than sudden withdrawal. He also finds, in advance of most contemporary knowledge, hepatic changes as a result of hard drinking.

The word 'addiction'

The English word 'addiction' was originally a legal term meaning a kind of acknowledged servitude. Referring to its metaphorical use Dr Johnson (1755) said 'It is commonly taken in a bad sense; as, he addicted himself to vice'. The early application of this metaphor to 'substance-addiction' is seen in Dr Robert James's translation of Simon Paulli's Commentarius de abusu tabaci ... et herbae thee, 2nd ed., Strasbourg, 1681:

1. PAULLI p. 7 'seruum qui se Tabaco mancipauit' [Latin translation of James I's English, 'a slave ... whom they find to be a great Tobacco-taker']
= JAMES p. 18 'a servant addicted to the Smoaking of Tobacco'.
2. PAULLI p. 9 'dediti ventri atque somno' [given to eating and sleeping, a quotation from Sallust, Catilineae coniuratio 2.8]
= JAMES p. 28 'addicted to intemperance and sleep'.
3. PAULLI p. 42 'ii ebrietati impense sunt dediti' [they are given to drunkenness without stint]
= JAMES p. 92 'we find them intolerably addicted to Drunkenness'.

Case 4

Alcohol - Hogarth's 'Beer Street' and 'Gin Lane', 1751: normal drinking vs. destructive addiction.

To the modern student of alcohol abuse, beer and gin are merely two of many vehicles of alcohol, and are therefore considered to have equal potential to cause harmful addiction. But the contemporary observer of mid-eighteenth century London distinguished sharply between them, concentrating on what was peculiar to each drink. Beer, often mentioned in association with bread, had been part of the ordinary diet of Britons for centuries without producing any notorious adverse effect on the population as a whole. Gin, on the other hand, was mainly consumed in the cities of London and Westminster, had been drunk in great quantities only since about 1720, was by 1750 consumed to excess by the poorer classes, and was considered responsible for the growth in violent crime, the increase in the death rate and the fall in the number of baptisms. The contrast between these two views of two alcoholic drinks was presented in several literary works and, graphically, in Hogarth's engravings Beer Street and Gin Lane, 1751. Thanks to these protests, Parliament was forced in that year to take measures to control the abuse of gin.

WILLIAM HOGARTH: 'Beer Street', engraving, 1751, second state.
In a street where beer is drunk literally left, right and centre, numerous details indicate the flourishing state of government, health, architecture, trade, literature and even the herring industry. The only enterprise not succeeding is that of N. PINCH, PAWNBROKER (right). The matter of addiction to beer does not arise.

WILLIAM HOGARTH: 'Gin Lane', engraving, 1751, second state.
'Gin Lane is a historic document whose essential truth is confirmed in numberless details incidentally recorded in the Old Bailey Sessions papers. The scene is in St Giles where in 1750 every fourth house at least was a gin-shop. Many of the crimes of the time bear all the marks of a gin-inflamed insanity. There is the case of Judith Dufour, who fetched her two-year old child from the workhouse, where it had just been 'new-clothed' for the afternoon. She strangled it and left it in a ditch in Bethnal Green in order to sell its clothes. The money (one and fourpence) was spent on gin ...' [Dorothy George, London life in the 18th century, 1930, p.42]. Note the flourishing state of the pawnbroker. In the first state of the print, the face of the baby being dropped in the centre was smooth, the copper being there left unengraved, but in this second state Hogarth engraved the copper to illustrate the fact that children of gin-soaked mothers 'look shrivel'd and old as though they numbered many years'.

Case 5

Alcohol - medical recognition of addiction

Thomas Trotter in 1804 was the first to regard 'drunkenness [as] a disease'. The 1860s drew further attention to hard drinking as a problem for the faculty - a problem much enhanced by rising prosperity, by a naïve belief in the virtues of alcohol, by the reactive teetotal movement (itself a branch of Nonconformity), and by an increasingly confident medical profession.

T. TROTTER. 'An essay, medical, philosophical, and chemical, on drunkenness, and its effects on the human body.' London, 1804.

Thomas Trotter [1761-1832], classic writer on scurvy (1786) and on the diseases of seamen (1797-1803), also published this influential essay on intoxication (1804). Significantly, he regards drunkenness as hitherto less the object of medical investigation than of priestly anathemas. 'In medical language, I consider drunkenness, strictly speaking, to be a disease'. 'The habit of drunkenness is a disease of the mind'. With this work systematic knowledge of one form of addiction - alcoholism - may be said to have begun.

R. MACNISH. 'The anatomy of drunkenness', Glasgow, 1832,
represents an early attempt to treat drinking as a medical problem. His account of the 'lamentable instance' of a 'young gentleman of fortune from the North of England' provides a flavour of his moral-medical approach.

W.B. CARPENTER. 'On the use and abuse of alcoholic liquors in health and disease.' Philadelphia, 1860.

W.B. Carpenter [1813-85], the well-known physiologist, concludes (p.137) a little bleakly that 'the habitual use of Alcoholic liquors, in moderate or even in small quantities, is not merely unnecessary for the maintenance of bodily and mental vigour, but is even unfavourable to the permanent enjoyment of health, even though it may for a time appear to contribute to it.'

W. MARCET. 'On chronic alcoholic intoxication, or alcoholic stimulants in connexion with the nervous system.' London, 1860.

W. Marcet [1829-1900], also a physiologist, defines chronic alcoholism as 'the collective symptoms of a disordered condition of the mental, motor, and sensory functions of the nervous system...affecting individuals who have persisted for a considerable length of time in the abuse of alcoholic liquors.'

His unsuccessful case on pp.106-7 assumes 'addiction' - in all but name - as part of the aetiology of chronic alcoholism.

Sir B.W. RICHARDSON. 'The temperance lesson book.' London, 1878,
Archetypal late Victorian consultant of enormous energy, medical writer, and temperance reformer, Sir Benjamin Ward Richardson [1828-96] demonstrates his ardent attachment to teetotalism in this and in numerous publications such as Diseases of modern life (London, 1876). Regarding alcohol as a physiological poison, he advocates 'the path of perfect abstinence from alcohol in every disguise.'

N. KERR. 'Inebriety, Its etiology, pathology, treatment and jurisprudence.' London, 1888.

Norman Kerr [1834-99], founder of the Society, published this major systematic approach to inebriety. Drawing on his experience as Consulting Physician at the Dalrymple Home for Inebriates at Rickmansworth, he covers the full contemporary range of addictive drugs, including alcohol, chloral, opium, cocaine, and ether. Alcohol he regards as an irritant, narcotic and anaesthetic poison. Inebriety is a disease.

Case 6

Tobacco: a dying habit?

The use of tobacco by Amerindians was wide-spread throughout the American continent. It was regarded as the mediator between man and the gods, and its use was revered accordingly. Nicotiana rustica, the tobacco species commonly used throughout America for ritual purposes, contains four times as much nicotine as the species Nicotiana tabacum used in commerce. Ritual tobacco therefore, by virtue of its pharmacological content and its religious associations, has a powerfully intoxicatory effect on participants.

Within a hundred years of its introduction to Europe in the late 15th century, the habit of smoking tobacco had been adopted. The plant also acquired a reputation as a panacea. Although early 17th century critics noted its habit-forming properties, little attention was paid to this aspect in the profusion of anti-nicotian literature; rather it was regarded as a 'devil's herb' and associated with drink as responsible for the decline in moral values. Edicts against tobacco (smokers were mutilated or executed in 17th century Russia and Turkey) failed to repress its popularity, and taxes and monopolies replaced penal measures.

The medicinal reputation of tobacco had diminished by the end of the 19th century. It had been noted in the 16th century that tobacco could be injurious to health. Not until the 18th century were the physiological properties of the plant investigated. The active principle nicotine was isolated in 1828.

The spread of each newly fashionable method of taking tobacco (snuff, cigar, cigarette) invited renewed criticism. At the end of the 19th century anti-smoking societies had been set up, primarily in England, France and the United States. These were moralistic and had strong links with the temperance movement.

Research since World War II has demonstrated a clear link between cigarette smoking and lung cancer and strong evidence of a relationship with cardiovascular disorders. Reasons of health rather than addiction per se thus form the basis of current anti-tobacco propaganda. Smoking has been described as the chief single avoidable cause of death in our society, but tobacco is not seen to be a dangerous drug by the public who still question its 'addictive' properties and continue smoking.

Mayan God smoking. Line drawing of Maya stone monument

Pipes were unknown to the Mayas, who consumed tobacco as cigars, as cigarettes or as a chew. This image on a sculptured panel from the Sanctuary of the Temple of the Cross at Palenque, is the only known stone-sculpture showing the act.

'Les raretes des Indes' [Codex canadiensis] c.1701

Fr. Louis Nicholas [b.1634] sketched the Indians he saw when travelling in the Great Lake Region in the late 17th century. An Amerindian is shown smoking a pipe 'in honour of the Sun which he adores'.

Shale pipe, carved in totemic style, North West coast of N. America, 19th century

The stem rather than the bowl of the pipe became an object of veneration. Smoking the pipe held a divine significance for the native Indians of America and many rituals developed around it. The carved figures represent N.W. coast tribal ancestors.

G. EVERARD. 'Panacea or the universal medicine'. London, 1659

The sub-title continues 'Being a discovery of the Wonderfull Vertues of Tobacco taken in a pipe, with its Operation and Use both in Physick and Surgery.' Dr Everard was a Dutch physician and this was the first translation of a work written in 1587. He urged caution in the use of tobacco: 'Christians are so much affected with it, that they cannot forbear it... I should counsel no man to take it, who doth not stand in need of it, and those that do, to use it with moderation as is required in the use of all other things'.

R. BURTON. The anatomy of melancholy. Oxford, 1621.

Burton, writing during the pro- and anti-nicotian debate in England in the early years of the 17th century, commented on the abuse of tobacco. James I in the The counterblaste to tobacco (1603) had noted 'To take a custome in anything that cannot be left again, is most harmful to the people of any land'.

F. DEKKERS. 'Exercitationes practicae'. Leyden, 1694 Leyden.

Tobacco has been used in numerous ways for affecting all kinds of cures, hence its name 'herba panacea'. Amongst others it cured syphilis and cancer, healed wounds, and gave protection against infectious diseases. The illustration shows the injection of tobacco, a cure for a young man suffering from severe nervous colic.

Pipes

- (a) Water pipe for tobacco or opium, Chinese 19th century
- (b) Clay tobacco pipe (incomplete), English 1640-70
- (c) Churchwarden's pipe, solid silver, 1810-12

'Les delices de la tabagie', engraving by D. Sornique [1708-1756], after David Teniers II [1610-1690].

Johann Lassenius, writing in Adeliche Tisch-Reden in Nuremberg in 1661, lamented 'how many a man who has fallen a victim to this frivolous habit will smoke away his brain, his memory, his wits - is not such a man to be pitied, who can no longer control his natural instincts and faculties?'

'A Smoking Club'. Caricature, line and stipple engraving [anon], 1794, after H. Bunbury

Such clubs were commonplace. Frederick I of Prussia's Tobacco Club (1701-13) even formed an important part of court life - everyone had to smoke or pretend to smoke.

Smoking set, English, 1815-20

This travelling set comprises a meerschaum pipe bowl, three stem sections, seven mouthpieces, a tinder pouch with steel attached, an ivory pipe tamper in the form of a finger, and a slender bristle brush for cleaning the pipe.

B. RUSH. 'Essays, literary, moral and philosophical'. Philadelphia, 1798.

Rush comments in passing on the progress of habit in the use of tobacco and that 'the want of it' produces 'real misery'.

E. BRAILSFORD. An experimental dissertation on the chemical and medicinal properties of Nicotiana tabacum. Philadelphia, 1799.

Frontispiece showing Nicotiana tabacum, the most widely used tobacco species in commerce. Whilst reporting its medical virtues he commented unfavourably on the use of tobacco as a luxury. 'We daily witness the horrid effects of inebriety.'

J.H. COHAUSEN. Dissertatio satyrica de pica nasi... Amsterdam, 1716.
This was the most vitriolic attack on snuff yet published. The author, a Doctor of Medicine, argued that only medicinal use of tobacco was permissible and that its social use was morbid and depraved. Its evils included loss of smell and hearing; it was detrimental to vocal chords; it increased swearing and it was exposure. The final passage advocates smoking as the lesser evil: 'Freedom in smoking and drinking goes with freedom in morals.... Smoke destroys virtue and beauty together. But smoke if you must, misguided girls. It will make you weep, and that is woman's lot'.

Remarks on Snuff-taking. Tinted etching c.1825

Snuff

Snuff was tobacco, washed and purified so that it nearly lost its flavour, and then performed and coloured with any number of additional ingredients. Less nicotine is absorbed by snuffing than by other methods of taking tobacco.

In Britain during the 18th century snuff replaced smoking as the fashionable habit, to the extent that Dr Johnson wrote in 1773 'Smoking is dying out'. The associated paraphernalia included snuff rasps, spoons, mills and boxes - a gentleman being known by the number and quality of the boxes he possessed.

Snuff-box, leather, English, 1790-1860

Skillfully constructed in the shape of a shoe, this was probably an apprentice piece.

Snuff-box. Papier-mâché, English, 1880-1910

The hinged lid shows youths playing cricket.

Snuff-box, walnut lined, with tortoiseshell and mother of pearl inlay on lid, English, 1801-1900

Snuff spoon, silver and ivory, London, 1810

Papier mâché snuff-box, English, c.1771-1830

The box has a sepia print on the lid entitled The Beast and showing two gentlemen at a table being sick due to over-indulgence from smoking.

Lancet, April 18 1857.

Abundant correspondence on tobacco appeared in the Lancet culminated in a poem attempting to define 'excess'.

The moral degeneracy of cigarette addicts was a common theme: a novel by R. Gull published in 1902 was entitled The cigarette smoker, being the terrible case of Uther Kennedy.

In 1908 legislation was passed in England forbidding the sale of tobacco to those under sixteen.

J.D. ROLLESTON 'The cigarette habit'. British Journal of Inebriety, 1932.

Rolleston was Vice-President of the National Society of Non-Smokers founded in the 1920s, and he forbade his patients to smoke in hospital.

American tin of tobacco pouches, 1984

Sailors were associated with chewing tobacco (possibly because it was a more convenient at sea) and in America in the 19th century it was extremely common amongst all classes. During World War II snuff and chewing became popular amongst nicotine-hungry workers when smoking was prohibited. Approximately the same amount of nicotine is absorbed when chewing as when smoking without inhaling.

Photograph, French doctor attending soldier on Western Front during first World War II.

General John J Pershing cabled Washington DC during World War I 'Tobacco is as indispensable as the daily ration; we must have thousands of tons of it without delay'.

Case 7

Opium in society

Opium was imported from Turkey and was widely available in England in the 18th and 19th centuries. Until 1868 it could be sold in any type of shop, and grocers' and general stores sold opium over the counter. The drug was sold in pill form or as a liquid, usually laudanum. There was also a wide variety of opium-based patent medicines, in particular the many varieties of chlorodyne. Opium was mostly used to treat the symptoms of major diseases for which cures were not then available, and as a general cure-all by people with no access to regular medical care. There was some 'recreational' use of the drug; that of the Romantic poets, De Quincey and Coleridge in particular, is the most widely known. But such use was limited, although there was some concern that it was spreading to the working-class.

W. WOODVILLE. 'Medical Botany.' London, 1793.

The opium poppy, *Papaver somniferum*, is a white poppy growing to a height of one or two feet. Opium poppies in Turkey provided most of the opium used in England in the 19th century.

Transactions of the Society of Arts, 1819, (37), p.20.

Attempts were made to produce opium commercially in Britain early in the 19th century. These are the implements used by John Young F.R.C.S. Edin., in his experiments in Scotland. The poppy capsules were incised and the opium brushed into the container. John Young received a gold medal from the Society of Arts.

T. DE QUINCEY [1785-1859], by Sir J. Watson Gordon. (Courtesy of the National Portrait Gallery)

Thomas De Quincey was part of a medical and literary group which used opium both medically and recreationally. The publication of De Quincey's Confessions of an English opium eater in the London Magazine (1821), brought English opium taking to public attention and created widespread interest in the subject.

S.T. COLERIDGE [1772-1834], by Peter Vandyke. (Courtesy of National Portrait Gallery)

Coleridge first took opium for toothache and other medical reasons, and came to use the drug recreationally. His poem, Kubla Khan (1797), is the epitome of an opium reverie.

Specimen jar of Turkish opium

Most of the opium imported into England in the 19th century came from Turkey. The Turkish opium exhibited was the property of J.F. Macfarlane & Co., a leading manufacturer of morphine. Britain was the world's main manufacturer of the drug until the 1930s.

'The Opium Fleet', lithograph by W.S. Sherwill, c. 1850

Indian opium rarely appeared on the drug market in Britain, but Britain was involved in the Indian opium trade with China, a matter for continuing disquiet in the 19th century.

'The Stacking Room, Opium Factory at Patna, India', lithograph by W.S. Sherwill, c. 1850.

The extent of opium production in India for both domestic use and export to China is here demonstrated.

Opium preparations in general use:

Glass bottle containing aromatic chalk with opium mixture

Green glass storage bottle for tincture of opium, second half of the 19th century

Stoneware storage jar for opium electuary, 1850-1900

Until 1868 opium was available without restriction over the counter in any type of shop. Grocers and other general stores sold the drug freely. After 1868, the drug had to be sold by a qualified pharmacist, but the range of preparations remained very large. Some of the range of possibilities are displayed here - Savory & Moore's chalk & opium mixture; a tincture of opium (laudanum) bottle and opium electuary.

Medicine chest, 1810-30

Opium was widely used in pill and liquid form in medical practice. This medicine chest has its bottle of laudanum (opium dissolved in alcohol) alongside the other drugs normally used by a 19th century doctor.

Account Book of William Armitage (retail chemist and grocer at Thorne, near Doncaster, 1847-99).

Opium preparations were sold over the counter for much of the 19th century. There were no restrictions until the 1868 Pharmacy Act reserved the sale to qualified pharmacists. Here opium in the form of laudanum (tinct. opii) is sold with coffee and cigars.

Cholera Recipe. Transcript of passage from St. James's Chronicle, 28 May 1831.

Opium was widely used as a palliative when specific drug treatments were not available. In diarrhoea, it was the major remedy and was in much demand during the cholera epidemics of 1831-32, 1849-53 and 1866.

Infants preservative advertisements

Children were often given soothing syrups based on opium. This was common in both working and middle class households. Fretful and ailing children were quietened and there was also a popular belief in the positive benefits of opium for children. The advertisement for Atkinson's Infants Preservative denies that it is based on opium, which was in fact its major ingredient. Dalby's Carminative was another well-known soothing syrup.

Chlorodyne bottle (Courtesy of the Pharmaceutical Society)

Patent medicines containing opium were still sold without restriction after 1868. Chlorodyne, based on chloroform and morphia, was one of the most popular. The preparation was most commonly associated with the name of Dr. John Collis Browne, a physician who first used the preparation in 1848 while serving with the Indian Army.

Freeman's chlorodyne advertisement. Pharmaceutical Journal, March 1886.

There were several chlorodynes on the market, including Freeman's, Towle's and Dr. Collis Browne's. Competition was keen and these advertisements show that chlorodyne manufacturers were not afraid to criticise the opposition.

Factories Inquiry Commission; Supplementary Report of the Central Board ... Answers to Medical Queries, Parliamentary Papers, 1834, XIX.

There was some concern that recreational opium use was spreading among the industrial working class. This appears to have been founded on a misunderstanding of self medication with opium. Opium use was widespread, but not in the sense implied by this question put by the Factory Commissioners to doctors in factory areas.

Case 8

Opium eating as a disease

Opium addiction was recognised as a separate condition well before the 19th century. But even in the 19th century it was seen as a moral rather than a medical question. What was then known as 'opium eating' was not categorised as a disease or even as a matter for medical interest.

Perceptions changed towards the end of the century. Specialist works on morphine addiction were published and medical interest in 'opium inebriety' was roused in England through the newly founded Society for the Study of Inebriety. Many members of this Society were also involved in the anti-opium movement; moral and medical questions were closely allied. Drug control policy was discussed before World War I, but was delayed until the passing of the Dangerous Drugs Act, 1920. The Rolleston Report of 1926 confirmed a control system based on medical perceptions of disease as well as criminal sanctions. This remained the basis of control until the changes of the 1960s and 1970s.

W. Whalley. 'Confessions of a laudanum-drinker'. *Lancet*, 1866, 2,35.

'Opium eating' was recognized as a condition well before the 19th century, together with such phenomena as tolerance and withdrawal. It was categorised as a moral failing and not as a disease. This perception of drug taking changed only gradually in the 19th century. In this case-history of 1866, the doctor does not presume to impose a medical framework of treatment and disease, and he lets the patient's family have the final word on availability of the drug. A fully-fledged disease theory involving medical treatment and control had not yet emerged.

Hypodermic syringe, c.1860

The emergence of disease theories of addiction had much to do with the hypodermic use of morphine. Hypodermic medication was introduced into British medical practice in the mid-19th century. Dr. Rynd of Dublin, Dr. Alexander Wood of Edinburgh and Dr. Charles Hunter share the credit for its discovery and application. Doctors were especially enthusiastic about the hypodermic administration of morphine, an alkaloid of opium isolated in the 19th century. Hypodermic morphine was seen as safer than ingestion of opium.

E. LEVINSTEIN. *Morbid craving for morphia*. London, 1878.

Levinstein's book, originally published in Germany in 1877 as *Die Morphiumsucht*, was one of the first to delineate drug addiction as a separate condition. Levinstein saw it also as a human passion 'such as smoking, gambling, greediness for profit. ...' English doctors were also increasingly uneasy about long-continued hypodermic use of morphine.

N. KERR. *Inebriety*. London, 1888.

In England, discussion of opium eating was linked with that of alcohol through the concept of inebriety. Norman Kerr's classic work on the subject has a section on opium inebriety which, as he notes, differs from alcoholic inebriety in that there are few organic lesions. Discussions such as this also took place under the auspices of the Society for the Study of Inebriety.

Dr. NORMAN KERR [1834-1899]. (Courtesy of the Royal College of Physicians and the Royal Society of Medicine)

Norman Kerr, author of *Inebriety*, was first President of the Society for the Study of Inebriety, and Chairman of the British Medical Association

Inebriates Legislation Committee. Kerr, like many of the early members of the Society, was an active Temperance advocate. He was also a member of the Society for the Suppression of the Opium Trade.

Opium Pipe

Discussion of the effects of opium taking in England were linked with increasing disquiet in the last quarter of the 19th century about the Indo-Chinese opium trade and the involvement of the British Government. Opium smoking itself was limited in Britain to small dockland communities of Chinese seamen.

G. DORE & B. JERROLD. 'London, A Pilgrimage.' London, 1872; and 'Opium den in the East End of London'. Illustrated London News, 1874, 65.

Fear of 'racial pollution' and the spread of opium smoking in England because of Britain's involvement in the Indo-Chinese trade became apparent by the end of the 19th century. The image of the 'opium den' was common - one of the first examples of media misrepresentation of drug use. Opium 'dens' were in reality little more than Chinese social clubs, and hardly justified the sensational treatment illustrated here.

C.R. FRANCIS, 'On the value and use of opium', Medical Times and Gazette, 1882, (1), pp.87-89, 116-17.

Disease theories of addiction were applied to moderate as well as to uncontrolled addicts, even though many of the former lived normal lives in every other respect. Dr. C.R. Francis, as part of an attempt to rehabilitate the drug, here cites the example of a friend who was a stable opium addict as proof that medical intervention and treatment was not always necessary.

Correspondence relative to the International Opium Commission at Shanghai. Parliamentary Papers, 1909, 105.

The Shanghai Opium Commission met in 1909, at American insistence, to consider measures for the control of opium in the Far East. Its resolutions were expanded to include morphine and cocaine and to encompass world-wide, rather than only Far Eastern control, by the Hague Convention of 1912. Britain had an obligation under this convention to enact domestic drug control legislation.

Dangerous Drugs Act, 1920 (Courtesy of the University of London Library)

The Hague Convention was not operative in Britain before the First World War. Controls were introduced under the Defence of the Realm Act after a drug scare in London and in the Army in 1916, but the Dangerous Drugs Act 1920 was the first all-embracing law limiting possession, sale and use.

A. CROWLEY. 'The Diary of a Drug Fiend.' London, 1922, pp. 226-27.

A subculture emphasising the recreational use of drugs was developing as early as the 1890s. By World War I, it was still largely confined to

artistic and theatrical circles in London. Aleister Crowley was one of the best known advocates of recreational drug use. In this book, written as a deliberate counterblast to the 'Diabolical Dope Act' of 1920, the hero and heroine, after travelling through Europe in a haze of heroin and cocaine, experience the rigour of abrupt withdrawal symptoms when their drug supply is terminated.

Report of the Departmental Committee on Morphine and Heroin Addiction, HMSO, 1926. (Courtesy of the Institute for the Study of Drug Dependence)

There were attempts in Britain in the 1920s to establish a penal policy on the American model and to stop maintenance prescription of narcotics. Exchanges between the Home Office and the Ministry of Health led to the publication of the Report of the Departmental Committee on Morphine and Heroin Addiction in 1926. This reaffirmed addiction as a medical matter based on ideas of disease. This Report is known as the Rolleston Report after the Chairman of the committee Sir Humphrey ROLLESTON [1862-1944].

Report of the Interdepartmental Committee on Drug Addiction, HMSO, 1961; Second Report of the Interdepartmental Committee on Drug Addiction, HMSO, 1965 (Courtesy of the Institute for the Study of Drug Dependence)

The liberal 'British system' of drug control established by Rolleston lasted until the 1960s. The first Brain Report of 1961 found little of concern in its enquiries. An increase in numbers of addicts from 459 to 753 between 1959 and 1964 caused the committee to be reconvened in 1964. The report it published recommended compulsory notification of addicts and a system of treatment centres which in due course became the present clinic system.

Case 9

Prescribed medication

Opium derivatives, cocaine, alcohol and other drugs liable to abuse have been extensively used in medical practice. Morphine is still a widely-used pain-killer and is an opium derivative. Other drugs have been introduced into medical therapeutics and only later has their abuse potential been fully appreciated. Examples include chloral, paraldehyde, and more recently the barbiturates and amphetamines. The initial optimism of the medical profession is shown by earlier pronouncements on a few of these drugs; later disillusionment by current opinions.

British Pharmaceutical Codex, 1911, p.291. L.S. GOODMAN and A. CILMAN. 'The pharmacological basis of therapeutics.' 6 ed. New York &c., 1980.

CHLORAL HYDRATE, a sleeping mixture introduced in the 19th century, is still in use. Early accounts mentioned the depressant action on the heart but not the addiction.

British Pharmaceutical Codex, 1911, p.762. L.S. GOODMAN and A. GILMAN. 'The pharmacological basis of therapeutics.' 6 ed. New York &c., 1980.

PARALDEHYDE too was introduced in the 19th century as a sleeping draught but was also administered by injection to quieten the mentally disturbed. Its objectionable taste and explosive powers were recognized early, but not its addictive potential.

E. BROWNING, 'Modern drugs in general practice.' London, 1940. British Pharmaceutical Codex, 1959, p.67. L.S. GOODMAN, and A. GILMAN, 'The pharmacological basis of therapeutics.' 6 ed. New York &c., 1980.

Introduced early this century, BARBITURATES became extensively used. In 1940 they were not regarded as 'drugs of addiction' although other effects were recognized. Even by 1959, tolerance and dependence were only briefly commented on. Nowadays, their liability to abuse and safer alternatives have led to their obsolescence.

British Medical Journal, 23 March 1968, p.753. British Medical Journal, 26 December 1970, p.801. L.S. GOODMAN and A. GILMAN. 'The pharmacological basis of therapeutics.' 6 ed. New York &c., 1980.

Introduced early this century, the AMPHETAMINES were extensively used in the Second World War. Epidemics of abuse occurred in the 1940s and 50s. By 1968 caution was being urged in their use in depression. Even this use was strongly criticised, and the drugs are now obsolete.

S.M. CHERNISH and C.M. GRUBER, 'Demonstration of absence of physical dependence to therapeutic doses of dextropropoxyphene hydrochloride (Darvon) using the 'Allyl Test'', in 'Antibiotic medicine and clinical therapy', 1960, 7 (3), 190-92. F.S. TENNANT. 'Complications of propoxyphene abuse', in 'Archives of Internal Medicine', 1973, 132 191-94.

Weak opioid analgesics have followed a similar pattern. For example, DEXTROPROPOXYPHENE, a constituent of 'Distalgesc' painkillers, was introduced as devoid of physical dependence liability. The report by Chernish and Gruber concludes that 'In clinical use, the dextropropoxyphene hydrochloride has been shown to be devoid of the properties which render drugs addicting. No euphoria, tolerance, or physical dependence have been demonstrated during its use. The new 'allyl test' is, for many drugs, the most demanding test yet devised.' By 1973 however, non-medical use by American soldiers in West Germany had reached epidemic proportions.

Case 10

Cruikshank's 'The Bottle': a Temperance melodrama. Scenes I-IV

The Bottle by George Cruikshank [1792-1878], published in 1847 with a poem by Dr Charles Mackay, was probably the best-known piece of propaganda against alcohol produced during the reign of Queen Victoria. Cruikshank himself was a great drinker in his early years. The portrait of him from this period, by Daniel Maclise, shows him sitting on a

beer-barrel in a pot-house, sketching with a tankard at his side. But while he was happiest at drunken parties in low taverns, he detested the spurious glamour of the new gin-palaces, which trapped and destroyed the poor. His hostility to them is evident in his horrific The Gin Juggarnath of 1834/6 and in his illustrations to O'Neill's The drunkard (1842). These works, which eventually brought him into contact with various sects of the Temperance movement, reached their climax in The Bottle of 1847. In the same year Cruikshank took the oath of abstinence from drink, but not until after he had completed the series of eight illustrations: he had been led to his conversion by his own propaganda.

The Bottle was an enormous popular success. It was turned into a penny novel by Gabriel Alexander (1847), transferred on to china dishes, produced as a waxworks, and performed dramatically at eight London theatres simultaneously. Matthew Arnold wrote a sonnet 'To George Cruikshank, Esq., on seeing for the time time his picture of 'The Bottle', in the country', and Dickens wrote on the day after publication 'At Canterbury yesterday I bought George Cruikshank's 'The Bottle'. I think it very powerful indeed: the last two plates most admirable I question whether anybody living could have done it so well.'

The effectiveness of the series owes much to the use of the device known as the 'box set', which had been introduced to English theatres in 1841 by the actress-manager Mme Lucia Vestris (Matthews). The basic structure (the fireplace and the door at the back, for example) remain as constants from the first scene to the last while the gradual disappearance of the other features marks the terrible transformation of a family home into a stark lunatic asylum, due entirely to drink.

Case 11

'The Bottle': a Temperance melodrama. Sciences V-VIII

Although Dickens admired the artistry of 'The Bottle', he was not convinced by its story. 'The philosophy of the thing, as a great lesson, I think all wrong; because, to be striking and original too, the drinking should have begun in sorrow, or poverty, or ignorance - the three things in which, in its awful aspect, it does begin. The design would thus have been a double-handed sword - but too 'radical' for good old George, I suppose.' It was also objected that if the sight of their father falling victim to drink did not drive his children to abstinence or at least moderation, why should such a sight convert the viewer of the prints to the cause? Yet George Cruikshank himself had not been put off alcohol by having had to step over his father and his father's guests rolled up in the carpet the morning after a hard night's drinking. Nor had either father or son been driven to drink by any of Dicken's trio 'sorrow, poverty, or ignorance'. In fact, in the The Bottle, various stages of the decline and fall, precisely because they are presented without motivation, mirror the state of mind of the habitual drinker, who finds himself drinking not as the result of a decision but because he has lost control of his own will.

After 1847, Cruikshank, always irrepressible, joined the most fanatical wing of the Temperance movement. To Dickens, an old drinking companion, he now declared that 'a man had better take a glass of prussic acid than fall into the other habit of taking brandy and water', and he caused embarrassment to Dickens again when he tried to wrest a glass of wine from one of the fellow-guests at a dinner party. The master caricaturist had himself become a caricature of a Temperance campaigner, and the movement took control of his art. He gave his profession as 'Painting and drawing to prevent Evil and to try to do Good'. Even his illustrations of fairy tales such as Jack and the Beanstalk turned the traditional stories into Temperance tracts, a perversion for which Dickens publicly attacked his old friend in 'Frauds on the Fairies' (Household Words, Oct. 1853). Cruikshank emerges as a constitutionally intemperate character, whether his 'addiction' was to alcohol or to its opposition.

George CRUIKSHANK, The Bottle, eight glyphographs after etchings.

George CRUIKSHANK, 'The Gin Juggarnath', etching, 1835. [photograph exhibited].

George CRUIKSHANK, 'Total abstainers' meeting in Sadler's Wells Theatre', wood engraving after drawing by George Cruikshank, from Illustrated London News, 20 May 1854, p.465. [photograph exhibited]
Cruikshank is seen welcoming a potential abstainer as she steps across the orchestra pit to take the Cath.

Cases 12,13

Cocaine - from 'beneficial stimulant' to addicting substance

The coca leaf and its properties as used in South America had been known in Europe through travellers' tales since the 17th century. The alkaloid cocaine was isolated by Albert Niemann in 1860, and a period of enthusiasm for both coca and cocaine followed. Coca chewing became popular as a means of testing physical endurance in the 1870s. The medical uses of cocaine were legion; the drug was even used in the treatment of morphine addiction. Coca wines and coca-based patent medicines were also widely available and advertised. Disenchantment had set in by the turn of the century, although the drug still had its medical and popular uses; it was in general use as a dental anaesthetic. There were also efforts to incorporate cocaine-taking in the disease model of addiction. During the First World War trafficking in cocaine became notorious, and a recreational subculture based in part on cocaine had developed.

Male Deity Chewing Coca

The coca leaf has been in widespread use in South America for many centuries and its sustaining properties were well-known. The drug was originally regarded by the Incas as a symbol of divinity. This male deity from Peru has a bump in his left cheek, indicating that he is chewing coca.

Lieut. L. Gibbon, U.S. Navy, 'Coca plantation, Peru', lithograph, Philadelphia P.S. Duval, n.d.

The coca leaf was a normal agricultural crop in S. America.

A. COWLEY. 'Six book of plants.' in 'The Works', London, 1689.

The powers of the coca leaf were known in Europe through the medium of travellers tales and later by scientific description and investigation. None was more enthusiastic than this poetic praise by Abraham Cowley.

P. MANTEGAZZA. 'On the dietetic and medicinal properties of Erythroxylon coca', Pharmaceutical Journal, 1859-60, (1), 616-18.

The work of Dr. Paolo Mantegazza was important in establishing the potential of coca for European medical use.

R. CHRISTISON. 'Observations on the effects of the leaves of Erythroxylon coca', British Medical Journal, 1876 (1), 527-31.

British doctors were enthusiastic about the sustaining properties of the coca leaf and there was a period of considerable experimentation in the 1870s and 1880s. Dr. Robert Christison [1797-1882], Professor of Materia Medica at Edinburgh, describes a walk up Ben Vorlich in the Highlands. Christison was 79 and chewed coca to sustain him.

Coca leaves from Peru, 1871-1920

An example of coca leaves imported from Peru for use during the European vogue for coca chewing.

G. DOWDESWELL. 'The coca leaf', Lancet, 1876, (i), 631-33, 664-67.

Graham Dowdeswell published his enquiry into the coca leaf in the same year that Christison wrote of his Highland walk. Dowdeswell's conclusion that its effect was so slight as to exclude any popular or therapeutic value was not generally shared. Sir Clifford Allbutt, later Regius Professor Physic at Cambridge, even took coca leaves with him on a walking tour in the Alps.

S. FREUD. Cocaine Papers, ed. R. Byck. London, 1963.

The power of the alkaloid, cocaine, as a local anaesthetic, won the drug more medical acceptability. The early work of Sigmund Freud and his friend and research colleague, Carl Koller, in Vienna, laid the foundations for this. Freud's paper Über Coca of 1884 was the first major survey of the drug's therapeutic use advocating, among other uses, its suitability as a cure for morphine addiction. Freud continued to experiment with the drug for several years, but Carl Koller's work on cocaine as a local anaesthetic was of more therapeutic significance.

'Armbrecht Coca Wine', Chemist and Druggist, 13 September 1890, 7, 23.

'Coca des Incas', poster printed by G. Reverchon, Paris, 1890.

Coca wines were popular items of consumption, valued for their invigorating properties. There are advertisements for English and French varieties; the Americans had Coca-Cola.

Armbrrecht's Coca Wine, Chemist and Druggist, 7 March 1891, 38, 333.

The market for coca wines was extensive enough to support production on the scale described here.

J.B. MATTISON. 'The Treatment of the Morphine Disease', Proceedings of the Society for the Study of Inebriety, 1892, 33, 1-16 (p.9).

Cocaine was hailed as a new 'wonder drug' at the end of the 19th century. One of its many supposed therapeutic uses was in the treatment of morphine addiction.

J.B. MATTISON. 'Cocaine Dosage and Cocaine Addiction', Lancet, 1887, (i), 1024-26.

Enthusiasm for cocaine as an addiction cure was short-lived. The cocaine 'habit' was incorporated within the new disease of addiction. This early warning of the dangers of the drug was based on Dr. Mattison's American experience.

Sir A. CONAN DOYLE: The memoirs of Sherlock Holmes, London, 1894: 'The yellow face'. The return of Sherlock Holmes, London, 1911: 'The missing three-quarter'; The adventures of Sherlock Holmes, London, 1914: 'The five orange pips'.

Sherlock Holmes is perhaps the most famous user of cocaine in literature. Conan Doyle's earlier references to Holmes's use were made in the 1880's when it was still regarded as a medical wonder drug. As time passed, and medical enthusiasm lessened, so Dr. Watson's reaction to Holmes' drug-taking is notably more censorious. In the 'Adventure of the Missing Three-Quarter' (1896), Watson refers to a 'drug mania' threatening his friend's career.

Sir A. CONAN DOYLE. William Gillette in Sherlock Holmes as produced at the Garrick Theatre, New York. New York, 1900 (Courtesy of the Sherlock Holmes Reference Collection)

Holmes's drug-taking provided a sensational theatrical moment in an adaptation of Conan Doyle's stories. Holmes injects himself in Act II as Watson looks on disapprovingly.

Daily Mail, 3 January 1919; ibid., 19 December, 1918.

Cocaine use was part of the recreational drug sub-culture. The possibility that its recreational use was extending to the Army caused controls to be instituted under the Defence of the Realm Act 1916. In 1918, the death of Billie CARLETON (Courtesy of the Mansell Collection) supposedly of a cocaine overdose after the Victory Ball at the Albert Hall led to tremendous publicity. This extended even into political comment as the

cartoon of LLOYD GEORGE demonstrates. The Carleton case increased Home Office determination to have the Dangerous Drugs Act on the statute book. There were other isolated cocaine cases in the 1920s, but the drug's recreational use was confined to relatively small numbers, primarily in London.

Case 14

Coffee, tea, chocolate - 'le poison est doux'

The explorer Francesco Carletti (1574-1617) reported that 'the Spanish, and every other nation which goes to the Indies, once they become accustomed to chocolate, its consumption becomes such a vice that they can only with difficulty leave off from drinking it every morning' (Viaggi, Florence, 1701, p.92). The 18th century medical authority S.A. Tissot of Lausanne warned that one should never make coffee one's daily drink, because the habit degenerates into a need from which few people have the strength to tear themselves away (see the text on the left SCREEN). The habit-forming tendency of tea was well-known in the 18th century and its degenerating effects (perpetual time-wasting tea-parties, loss of European wealth to the Chinese, decline of the breweries, etc), were denounced. An 'addictive' character was therefore attributed to these substances, but only as one of a number of characteristics which were attributed to many habitual indulgences some of which (wine, tobacco, etc.) are today considered potentially 'addictive', others not. From consideration of this larger field, the 'emergence of addiction' itself emerges as a gradual narrowing of definition according to culturally determined criteria. What has freed coffee etc. from inclusion among the 'addictions' in modern industrialized countries is not that they are harmless (not harmless to the digestion or nervous system, for example) but that they do not stop their victims from working. Nevertheless, they have a place in the history of the subject.

D. DUNCAN. 'Von dem Missbrauch heisser und hitziger Speisen und Geträncke, sonderlich aber des Caffes, Schokolade, und Thees'. Leipzig, 1707, frontispiece.

The majority of medical men in Europe recommended the consumption of tea, coffee and chocolate for medicinal purposes, as they also recommended tobacco and wine. A vociferous minority condemned their excessive use, however. Duncan was the most unrelenting enemy of these drinks: in this illustration, three ladies drinking cups of 'Schokolade', 'Coffe' and 'The' are represented as saying 'We are all drinking ourselves to death, it's good form if you want to be a la mode'.

J. HANWAY. 'An essay on tea', in his 'A journal of eight days journey from Portsmouth to Kingston upon Thames. London, 1756, pp.203-361, frontispiece and titlepage.

The frontispiece, engraved by T. Major after Samuel Wale, shows the grievous effects attributed by the author to tea. The inn (left) is derelict (as in Hogarth's Gin Lane, for a similar reason). The people are dressed in rags and neglect their baby. In the background, a ship arrived from China unloads more crates of the pernicious drug.

J. HANWAY. 'An essay on tea'. London, 1756, p.246.

The memorial which the author hopes to raise to the women of England for rescuing the country from 'the use of a CHINESE drug called TEA'.

Coloured woodcut by CHIKAHISA after YOSHIKAZU, Tokyo, c.1860.

The print shows westerners (probably English, American or Dutch) taking tea at Yokohama, c.1860. Westerners were first admitted to Japan in 1853, and prints like this were issued for the Japanese market to satisfy curiosity about visitors who were all the more strange for their elaborate tea-ceremony, different in so many respects from the one familiar in Japan. Addictions have their own arcana.

Anon. [George Wither?]. 'A broad-side against coffee: or, the marriage of the Turk', in King James I et al., 'The touchstone or, trial of tobacco'. London, 1676, pp. 58-60.

Coffee-drinking had been observed by Europeans in Turkey and Egypt in the 16th century, was gradually introduced to Europe in the 17th century and continued to flourish in the 18th. While many medical men recommended it, others suggested that it caused sterility and other evils, and pointed out that French merchants returned from the Levant unable to live without it (La Roque, *Voyage de l'Arabie heureuse*, Paris 1716, p.364). The exhibited 'broadside' is one of many attacks based on xenophobia: 'Bold Asian Brat! with speed our confines flee; Water, though common, is too good for thee.'

A. GOTTI. *De hydropie ejusque causis*. Florence, 1709.

In connection with its effect in dropsy, Gotti attacked the intemperate use of chocolate, to which people were being driven by its 'wonderfully pleasant taste'. Page 71: 'Let the intemperate use of this [American] Indian drink be left to the intemperate Indians, and let us be ashamed to beg for foreign customs from distant and barbarous peoples.'

G. B. FELICI. 'Parere intorno all' uso della cioccolata.' Florence, 1728.

'Among the many disorders which the intemperance of mankind has introduced to shorten life, one of the greatest, I believe, is the use of chocolate' (p.1). At the end of this admonitory treatise are printed a number of poems in support of the author's arguments. Exhibited: A. Licosurio, 'The frequent use of chocolate is condemned as harmful' (p.66).

F. ARISI. 'Il cioccolato, trattenimento ditirambico.' Cremona, 1736.

A dithyramb on chocolate, in reply to Felici's treatise.

Case 15

The Hallucinogens - drugs of addiction?

From the point of view of the present exhibition hallucinogens form a distinct class of psychotropic drugs, partly because they are specific in action, and partly because it is still uncertain whether they are correctly called addictive.

Most hallucinogens are toxic, some extremely so, and most are therefore highly unpleasant in use. Most carry such intense change of mind-set that they may trigger psychoses, particularly when such a drug is ingested by members of a culture not patterned to receive it.

Both in the past among the Aztecs and in the present among modern Amerindian peoples we may see at its clearest the encouragement of a mind-changing drug - peyote - within a familiar sacramental framework, and its discouragement by members of another culture fearful as much of its uncanny properties as of its ability to retain the loyalty of an individualist shamanic tradition. Peyote is however now exempted from restriction by the U.S. government for sacramental use within the syncretist Native American Church.

Proponents aver that the hallucinogens (apart from the opioids) are non-addictive; opponents that they may be, and that they are likely in any event to be of extreme danger to the psyche - and to the survival - of the individual user. Such debates have been heard before. What is important is that we here see a class of psychotropic drugs which as yet remains in an evaluative limbo.

Attitudes indeed to most drugs, psychotropic or therapeutic, remain not a little ambivalent. We may perhaps most justly regard all mind-changing substances as Janus-faced, and their harmless use as highly relative to the state of the individual and his culture.

Peyote

Burial evidence indicates that the 'mescal bean' [*Sophora secundiflora*] has been known to the Amerindian for some 10,000 years. Highly toxic, it is taken at grave risk to life. Its use gave place in the 19th century to the somewhat less hazardous peyote [*Lophophora williamsii*] which grows in the north-central Mexican desert. This cactus, 'a veritable factory of alkaloids,' contains the wellknown mescaline experimented on by Aldous Huxley in the 1950s, and numerous adjuvants.

Peyote is traded extensively by Amerindians throughout North America for use in the rites of the Native American Church, numbering some 225,000 adherents.

B. de SAHAGUN, *Historia de las cosas de Nueva Espana*. [The Florentine codex] Lib. 10, cap. 29, (ed. C.E. Dibble & A.J.O. Anderson). Santa Fe, N.M., 1961, vol. 10, pt. xi, p.173.

The 16th century Franciscan records that the Aztecs 'knew the qualities, the essence, of herbs, of roots. The so-called peyote was their discovery. These, when they ate peyote, esteemed it above wine or mushrooms. They assembled together somewhere on the desert; they came together; there they danced, they sang all night, all day. And on the

morrow, once more they assembled together. They wept; they wept exceedingly. They said (thus) eyes were washed; thus they cleansed their eyes.'

J. de CARDENAS. Primera parte de los problemas, y secretos maravillosos de las Indias. Mexico, 1591 ff. 243^v - 244^r, (facsimile, 1945).

Cardenas held that the active principle of peyote passed from the intestine to a specific site in the brain. He correctly observed changes in perception, visual hallucinations following the early stimulatory stage, and the induction of a non-relaxing sleep.

MEXICO. The Inquisition. Nos los inquisidores contra la heretica pravedad y apostacia en la Ciudad de Mexico [etc]. Mexico, 1616.

An attempt to ban astrological and other 'superstitious practices' and to prevent women taking 'certain drinks of herbs and roots with which they enrapture and stupefy the senses. The hallucinations and fantastic images that they have, they regard as revelation and publish them afterwards as certain news of that which shall come to pass.'

F. HERNANDEZ. Rerum medicarum Novae Hispaniae thesaurus. Rome, 1628-51. Lib. V, cap. XIV, p. 145.

Francisco Hernandez [1517/18-1587], personal physician of Philip II of Spain, travelled in New Spain 1570-77 to research and report on the properties of indigenous materia medica.

His entry on the Ololiuhqui or 'plant of round leaves', records that 'The Indian priests, when they wish to seem to have converse with the gods and to receive replies from them, eat this plant to achieve intoxication and to see a thousand fantasies and figures of demons; a property which one could say is similar to that of the Solanum manicum [*Datura stramonium*] of Dioscorides'.

The hallucinogenic principles of these morning-glory seeds are closely related to synthetic LSD-25.

B. G. MEYERHOFF. Peyote hunt: the sacred journey of the Huichol Indians. Cornell University Press, 1974.

The Huichol return annually to the sacred land of Wirik'uta to hunt the peyote. The pilgrimage requires faith, physical endurance, deprivation of food, water, salt, and sleep, and many ritual cigarettes of the powerful Nicotiana rustica tobacco.

His interpreter to the western world regarded Ramon Medina Silva as 'a true marakame, like all authentic shamans, a man of immense courage, poise, and balance.'

Here Ramon awaits his peyote vision. 'We went to find our life; we went to see what it is to be Huichol'.

A. HUXLEY. The doors of perception. London, 1954.

This, the most literate expression of the mescaline experience, can reasonably claim to be the origin of the western drug 'culture' of the 1960s. Mescaline is a major constituent of peyote, but, according to observers, its effects should not be equated too closely with the psychic experiences of Amerindian peyotists.

S. P. KRASHENINIKOV. The history of Kamtschatka, and the Kurilski Islands [&c.]. (Trans. James Grieve, M.D.). Gloucester, 1764 pp. 208-9.
An early and accurate account of the effects of eating fly agaric [Amanita muscaria]. The text also records the custom of drinking the urine of the mushroom eaters for the same [but less toxic] effect.

Further reading

General

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J.H. Jaffe, 'Drug addiction and drug abuse'. In: L.S. Goodman and A. Gilman. The pharmacological basis of therapeutics. 6 ed. New York: Macmillan. 1980. (p. 535-784).

H. Petursson and M. Lader. Dependence on tranquillizers. [Maudsley Monograph No. 28]. Oxford University Press. 1984.

Cases 10-11 (Cruikshank's 'The Bottle')

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Cases 12-13 (cocaine)

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Case 14 (coffee, tea, chocolate)

W. Mueller. Bibliographie des Kaffee, des Kakao, der Schokolade, des Tee und deren Surrogate bis zum Jahre 1900. Bad Bocklet: W. Krieg. 1960.

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Case 15 (hallucinogens)

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